PPA 275 Wide-Band FM Hearing Assistance System

Description:

The PPA 275 is an FM listening system used for large area hearing assistance. It helps overcome background noise, reverberation, and distance from the sound source. The T4 transmitter plugs directly into the sound system, and broadcasts the message via FM radio signal. Listeners use the R30 to pick-up the broadcast and listen to the speakers message.

Applications:

Houses, of worship, auditoriums, theaters, classrooms, conference rooms, museums, parks.

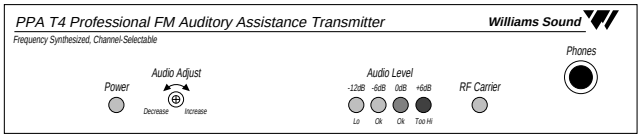
PPA 275

PPA T4 Transmitter:

Dimensions, Weight:	8.45" (21.5 cm) W x 8.18" (20.8 cm) D x 1.72" (4.4 cm) H, 3lbs. (1.5 kg)
Color:	Black epoxy paint with white legends
Rack Mount:	One EIA rack space high, 1/2 space wide 1–2 units can be mounted in a single rack space with optional RPK 005 (single) or RPK 006 (double) Rack Mount Kits
Power:	21 VAC minimum; 26 VAC maximum, 50 or 60 Hz 4.8 VA nominal; 10 VA maximum; Wall mount transformer for 105 to 130 VAC included
FCC ID:	CNMT4
Operating Freqs:	72.1–75.9 MHz * 10 wide–band channels, selectable
Frequency Accuracy:	±.005% stability, 0-50˚ C
Deviation:	± 75 kHz maximum
Pre-Emphasis:	75 µsec
RF Field Strength:	Does not exceed 3 mV/m at 3 m
Nominal Range:	300-500 ft. (90-150 m)
Audio Proc. Functions:	Soft Knee Limit or Compress
Compression	10 dB add'l gain when input is –20 dB 20 dB add'l gain when input is –40 dB
Soft Limiting	> 10 dB add'l gain when input is –45 dB
Frequency Response:	30 – 16000 Hz, +1, -3 dB
Signal to Noise Ratio:	More than 70 dB below 75 kHz deviation in Limit mode
Note:	Maximum transmitter range is achieved using the ANT 005 coaxial antenna
Warranty:	5 years*

PPA T4 Transmitter Front Panel:

Power Indicator:	Green LED
Audio Level Control:	Rotary pot, screwdriver adjust, used with audio level indicator lights
Audio Level Indicators:	4 LED array, reads -12, -6, 0, and +6 dB
RF Carrier On Indicator:	Green LED indicates transmitter RF is on
Phones Jack:	1/4" TRS (Stereo) jack

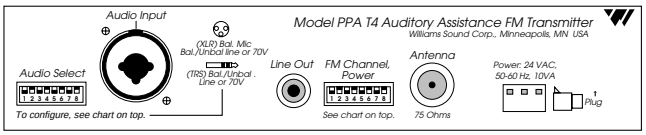


(T4 Front Panel)

PPA T4 Transmitter Rear Panel:

Audio Select Switch:	Eight–section DIP switch
Audio Input:	Combination 3 pin XLR, 1/4" TRS jack
Line Output:	RCA jack, 0.6 V output impedance 1000 Ω
FM Channel Switch:	Eight–section DIP switch (Seven used)
Antenna Outputs:	Thread Mount for "rubber duckie" flexible whip antenna. Can also be purchased with: 1) 75 Ω Coaxial Antenna (ANT 005), using 15 feet of RG-59 cable, or 2) Wall Mount Dipole Antenna (ANT 024), using 25 feet of RG-59 cable.
Power Connections:	3-pin Molex® connector

Input Levels	Minimum	Nominal	Maximum
Microphone:	100 µV	1 mV	100 mV
Bal or Unbal Line:	10 mV	100 mV	10 V
Bal or Unbal or 70 V speaker line:	2.3 V	23 V	230 V



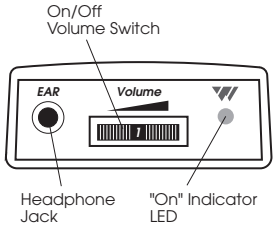
(T4 Rear Panel)

(800) 843-3544 • (952) 943-2252 • FAX (952) 943-2174 • www.williamssound.com

Williams Sound ®
Helping People Hear

PPA R30 Receiver:

Dimensions:	3-5/8" L x 2-3/8" W x 7/8" H (92.1 mm x 60.3 mm x 22.2 mm)
Weight:	4.6 oz (130 g) with batteries
Color:	Gray
Battery Type:	Two (2) AA 1.5 V non-rechargeable Alkaline batteries (BAT 001), 14 mA nom. current drain, 80 hours approx. life (OR) Two (2) AA 1.5 V Ni-Cad rechargeable batteries (BAT 026), 14 mA nominal current drain, 50 hours per charge approx., recharges in 14–16 hours, uses CHG 1600 Charger or CHG 200 Charger
FCC ID:	CNM R30
Industry Canada Cert.:	13601021234A
Operating Freq.:	Pre-Tuned, Adjustable, 72 MHz - 76 MHz *
Intermediate Freq.:	75 kHz
FM Deviation:	75 kHz
De-Emphasis:	75 µS
AFC Range:	± 120 kHz
Sensitivity:	4 µV at 12 dB Sinad
Input Overload:	20 mV
Frequency Response:	100 – 10 kHz, ± 3 dB
Signal-to-Noise Ratio:	50 dB at 10 µV
Receive Antenna:	Integral with earphone/headphone cord
Audio Output:	35 mW, max. at 16 Ω
Output Connector:	3.5 mm mono phone jack
Earphone:	Earbud-type with foam cushion (EAR 013), 3.5 mm plug, 32 Ω
Warranty:	Five Years, Parts and Labor. 90 days on cords, earphones, headphones, batteries and other accessories
Notes:	The R30 Receiver can be field tuned to any of 10 wideband channels using the PLT 005 Tuning Tool.



R30 Top

R30 Front

Bid Specs

The R30 receiver shall be encased in a gray, polypropylene impact-resistant plastic with a single hinged door for battery installation. The receiver shall be a body-pack type and include an optional belt-clip case for hands-free operation. The receiver shall have a 3.5 mm mono phone jack and accommodate low-impedance mono earphones, headphones, and neckloops telecoil couplers. The receiver shall have a combination volume control and power on/off rotator dial, and a green LED power "on" indicator. The receiver frequency shall be pre-tuned and adjustable to 10 wideband channels from 72-76 MHz by internal tuning coil. The receiver shall operate up to approx. 80 hours when using 1.5 V AA Alkaline batteries, and shall operate up to approx. 50 hours when using 1.5 V NiMH rechargeable AA batteries.
The receiver shall receive FM signals in the 72-76 MHz audio assistance band with 75 µS de-emphasis. The receiver shall provide a maximum output of 35 mW at 16 Ohms with an earbud-type earphone. The system's electrical frequency response shall be 100 Hz to 10 kHz, ± 3 dB and the signal to noise ratio shall be 50 dB at 10 µV. The receiver shall have a sensitivity of 4µV at 12 dB Sinad.
The receiver shall be covered by a five years parts and labor warranty, excluding earphones, headphones, batteries, and chargers.
The receiver model shall be the Williams Sound Corp. Model PPA R30.

The FM T4 Transmitter shall be contained in a black metal, rack-mountable enclosure. A rack panel shall be available to mount up to 2 transmitters within a single EIA rack space.
The transmitter shall provide, through low-noise circuitry, 10 wide-band frequencies between 72 MHz and 76 MHz selectable by external DIP switches.
The transmitter rear panel shall have a combination 3 pin XLR, _ inch TRS audio input jack, an eight section DIP audio select switch, a line out RCA jack, 0.6V output impedance @ 1KW. It shall have an eight section DIP switch (seven Used) for channel selection. There shall also be a threaded F connector antenna output jack for an optional 75Ω coaxial antenna using RG-59 cable on the back of the transmitter.
The transmitter shall have thread mounts for securing a rubber duckie antenna through the top of the case panel.
The transmitter front panel shall have a green power LED indicator. It shall have an audio level control with rotary potentiometer, screwdriver adjustable used in conjunction with a four LED array with readings –12, -6, 0 and +6dB. There shall also be a green LED RF carrier and a _ inch TRS stereo headphone jack on the front panel.
The transmitter shall be powered by an external 12 VAC, 60 Hz, 10 VA power supply via a three pin Molex® connector. There shall be no power switch.
The transmitter shall carry a 5 year warranty on parts and labor. The transmitter shall be a Williams Sound Corp. model PPA T4.